

*Citation for published version:*

Dello Russo, S, Parry, E, Bosak, J, Andresen, M, Apospori, E, Bagdadli, S, Chudzikowski, K, Dickmann, M, Ferencikova, S, Gianecchini, M, Hall, T, Kase, R, Lazarova, M & Reichel, A 2020, 'Still feeling employable with growing age? Exploring the moderating effects of developmental HR practices and country-level unemployment rates in the age – employability relationship', *The International Journal of Human Resource Management*, vol. 31, no. 9, pp. 1180-1206. <https://doi.org/10.1080/09585192.2020.1737833>

*DOI:*

[10.1080/09585192.2020.1737833](https://doi.org/10.1080/09585192.2020.1737833)

*Publication date:*

2020

*Document Version*

Peer reviewed version

[Link to publication](#)

This is an Accepted Manuscript of an article published by Taylor & Francis in The International Journal of Human Resource Management on 18 Mar 2020, available online:  
<http://www.tandfonline.com/10.1080/09585192.2020.1737833>

**University of Bath**

## **Alternative formats**

If you require this document in an alternative format, please contact:  
[openaccess@bath.ac.uk](mailto:openaccess@bath.ac.uk)

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

## Still feeling employable with growing age?

Exploring the moderating effects of developmental HR practices and country-level unemployment rates in the age – employability relationship

<p>Silvia Dello Russo</p> <p>TBS Busines School</p> <p>1 Place Alphonse Jourdain</p> <p>31068 Toulouse</p> <p>France</p> <p>s.dellorusso@tbs-education.fr</p> <p>+33 5 61 29 50 84</p> <p><i>(Corresponding author)</i></p>	<p>Emma Parry</p> <p>School of Management</p> <p>Cranfield University</p> <p>College Road</p> <p>Cranfield, Bedfordshire MK430AL</p> <p>United Kingdom</p> <p>emma.parry@cranfield.ac.uk</p> <p>+44 (0) 1234 751122754808</p>
<p>Janine Bosak</p> <p>Business School</p> <p>Dublin City University</p> <p>Glasnevin, Dublin 9</p> <p>Ireland</p> <p>janine.bosak@dcu.ie</p> <p>+353 1700 6769</p>	<p>Maike Andresen</p> <p>Department of Social Sciences, Business Administration and Economics</p> <p>Otto-Friedrich-University Bamberg</p> <p>Kirschäckerstraße 39</p> <p>Bamberg, DE 96045</p> <p>maike.andresen@uni-bamberg.de</p> <p>+49 (0)9518632570</p>
<p>Eleni Apospori</p> <p>Athens University of Economics and Business, Marketing And Communication</p> <p>76 Patision Str</p> <p>Athens, GR 104 34</p>	<p>Silvia Bagdadli</p> <p>Bocconi University</p> <p>Via Rontgen 1</p> <p>20136 Milan, Italy</p> <p>silvia.bagdadli@unibocconi.it</p>

<p>apospori@aueb.gr</p> <p>+302108201141</p>	<p>+39.02.5836 -2629, -2632</p>
<p>Katharina Chudzikowski</p> <p>University of Bath</p> <p>Bath, Somerset,</p> <p>UK BA2 7AY</p> <p>k.chudzikowski@bath.ac.uk</p> <p>+44 (0) 1225 383499</p>	<p>Michael Dickmann</p> <p>School of Management</p> <p>Cranfield University</p> <p>College Road</p> <p>Cranfield, Bedfordshire, UK MK43 0AL</p> <p>m.dickmann@cranfield.ac.uk</p> <p>+44 1234 751122</p>
<p>Sonia Ferencikova</p> <p>School of Management/VSM</p> <p>Panonska 17, 851 04</p> <p>Bratislava</p> <p>Slovakia</p> <p>sferencikova@vsm.sk</p> <p>+421905632813</p>	<p>Martina Gianecchini</p> <p>Department of Economics</p> <p>University of Padova</p> <p>via del Santo, 33</p> <p>Padova, IT 35123</p> <p>martina.gianecchini@unipd.it</p> <p>+39 0498273847</p>
<p>Douglas Tim Hall</p> <p>Questrom School of Business</p> <p>Boston University</p> <p>595 Commonwealth Avenue</p> <p>Boston, MA 02215</p> <p>dthall@bu.edu</p> <p>+1 617-353-4166</p>	<p>Robert Kaše</p> <p>Faculty of Economics</p> <p>University of Ljubljana</p> <p>Kardeljeva ploscad 17</p> <p>1000 Ljubljana, Slovenia</p> <p>robert.kase@ef.uni-lj.si</p> <p>+386 1 5892-649</p>
<p>Mila Lazarova</p> <p>Beedie School of Business</p>	<p>Astrid Reichel</p> <p>University of Salzburg</p>

Simon Fraser University	Kapitelgasse 4-6
500 Granville Street	5020 Salzburg, Austria
Vancouver, BC, V6C 1W6, Canada	astrid.reichel@sbg.ac.at
mbl@sfu.ca	+43 (0) 662 / 8044-3704
+1 778 782 7709	

The Version of Record of this manuscript has been published and is available in  
<https://doi.org/10.1080/09585192.2020.1737833>

### Acknowledgements

The authors wish to express their appreciation to all the members of the 5C consortium for their invaluable contribution in data collection. They also wish to express their gratitude to Marcy Crary for feedback and advice on the paper and to the Editor and anonymous reviewers for their highly constructive comments.

### *Abstract*

A compelling issue for organizations and societies at large is to ensure external employability of the workforce across workers' entire work-life span. Using the frameworks of age norms, stereotyping and age meta-stereotypes, we investigate whether (a) age is negatively related to perceived external employability; and (b) the age-employability link is moderated by HR developmental practices (HRDPs) and unemployment rate. We argue that being aware of stereotypes and age norms in organizations, and holding also meta-stereotypes about their group, older workers perceive themselves as less externally employable. However, the context –HRDPs that one has experienced, and the country unemployment rate – would act as buffers. Using data from a large-scale survey from over 9000 individuals in 30 institutionally diverse countries, we found that the negative relationship between age and perceived external employability was significant across all countries. In addition, at the individual level, we found that HRDPs acted as a buffer for this negative relationship, such that the effect was less pronounced for individuals who have experienced more HRDPs during their working life. At the country level, the hypothesized moderating effect of unemployment rate was not observed. Limitations, future research directions, as well as practical implications of the study are discussed.

Keywords: Perceived external employability; Age; Developmental HR practices;  
Unemployment rate; Cross-country study

## Introduction

Employability is a salient factor for many workers (Berntson, Sverke, & Marklund, 2006) and is regarded as critical for securing one's position in the labor market (De Cuyper, Bernhard-Oettel, Berntson, De Witte, & Alarco, 2008). It is especially critical because employees are now expected to work longer in life (Ebbinghaus, 2006; UN, 2019) and yet empirical evidence suggests that employability decreases as people age (e.g., Böttcher, Albrecht, Venz, & Felfe, 2018). However, there has been little research to explore this relationship directly.

Employability has been defined differently across multiple disciplines (Fugate, Kinicki, & Ashforth, 2004; Guilbert, Bernaud, Gouvernet & Rossier, 2016). In this paper we focus on the opportunity to continue working, which previous studies have identified as a core aspect of employability (Le Blanc et al., 2017). Employability so defined includes both internal (i.e., within the current organization) and external (i.e., across organizations) employability. Although some combine the two facets of employability in a single construct (e.g., Le Blanc et al., 2017; Van Dam, Van Vuuren, & Kemps, 2017; Wittekind, Raeder, & Grote, 2010), we focus on *external* employability alone because older workers often encounter difficulties finding a new job in the external labor market, facing different forms of discrimination to employment or re-employment (Fisher, Truxillo, Finkelstein, & Wallace, 2017; Wanberg, Kanfer, Hamann, & Zhang, 2016; Zaniboni, Kmicinska, Truxillo, Kahn, Paladino, & Fraccaroli, 2019). External employability, rather than internal employability, is particularly problematic for older workers, as recruiters and interviewers have insufficient information on the applicant and thus tend to rely on heuristics including stereotypical beliefs about age, especially when detailed work history information (e.g., past performance records) is lacking or not incorporated to adjust first impressions (Derous, Buijsrogge, Roulin, & Duyck, 2016).

Past research has offered initial evidence of a negative relationship between age and self-perceived employability (Böttcher et al., 2018; Hennekam, 2015; Tisch, 2015), but

scholars have also pointed out that examining the direct relationship alone is too simplistic and “provides little guidance on how older workers might remain employable” (Froehlich et al., 2015, p. 2088). Notably, studies tend to overlook how context might influence the focal relationship. First, employability research has been criticized for being overly focused on the individual (Forrier, DeCuyper, & Akkermans, 2018). Such a perspective assumes that employability is exclusively an individual asset that can be accrued via individual efforts regardless of the context. However, contextual elements such as employer’s activities (e.g., training efforts) are likely to impact on employees’ perceived employability (Nelissen, Forrier, & Verbruggen, 2017). Second, the role of the macro level context has also largely been ignored despite plentiful evidence that labor markets around the world differ in meaningful ways (e.g., OECD, 2019b).

Therefore, the core objective of our study is to investigate the role of the proximal (i.e., work-related) and distal (i.e., societal) context in the relationship between age and perceived external employability. Specifically, we examine the work-related factor of Human Resource Developmental Practices (HRDPs) as a moderator, motivated by the major role that organizations play in supporting individuals’ employability (Cavanaugh & Noe, 1999). In studying these practices, we respond to multiple calls for understanding the role of human resource management in sustainable careers (De Prins, De Vos, Van Beirendonck, & Segers, 2015; Van der Heijde & Van Der Heijden, 2006). We also examine the role of macro-level unemployment rate, a key characteristic of labor markets. By considering these boundary conditions, we account for the inherently contextual nature of employability and the extent to which organizational practices and the labor market are influential for one’s employability self-perceptions (Berntson et al., 2006).

Our paper therefore makes two critical contributions. First, we consider the role of organizational initiatives in shaping how individuals construe their perceptions of external

employability as they age (Forrier & Sels, 2003). Second, we examine whether the proposed negative relationship between age and perceived external employability is universal across country contexts. We leverage a large cross-country dataset, thus moving employability research away from single-country or few-country studies (Froehlich, Beausaert, & Segers, 2016) toward international comparisons and contribute to the scarce body of multi-level research on employability.

### **Perceived External Employability and Age**

A common definition of employability in the management field is “an individual’s chance of a job on the internal and/or external labor market” (Forrier & Sels, 2003, p. 106). Employability so defined can be assessed at the micro-, meso- and macro-level (Vanhercke, DeCuyper, Peeters, & DeWitte, 2014). We choose to examine employability at the micro-level, as that is how it is viewed in the psychological literature (McQuaid & Lindsay, 2005). Within this approach, employability is typically assessed as self-perception (Vanhercke et al., 2015). Since subjective perceptions can shape individuals’ actions more directly than any objective reality (Roskies & Louis-Guerin, 1990), we too focus here on self-perceptions of external employability. We define this as one’s perceptions of the general likelihood of future employment if the person were seeking a new job (De Cuyper & De Witte, 2011; Vanhercke et al., 2014). Asking for individuals’ *perceptions* of their own external employability is reflective of how they perceive their fit with existing employment opportunities (Forrier, Verbruggen, & De Cuyper, 2015) in that the opportunity to continue working depends on the interplay of personal and structural factors.

Scholars have suggested that factors such as “discrimination of certain groups in the labour market” (Thijssen, 2000, cited in Forrier & Sels, 2003, p. 109) shape perceived employability. One such group is older employees (e.g. Ahmed, Andersson, & Hammarstedt, 2012; AHRC, 2015; Riach & Rich, 2006, 2007a, 2007b). In later career stages individuals are



faced with age stereotypes and discrimination, which employees may internalize into their appraisal of employment opportunities – thus leaving them to perceive lower external employability. The mechanism behind this is twofold.

First, organizations are steeped in implicit age norms, namely shared beliefs about the appropriate age to hold specific positions (Lawrence, 1988). Studies have shown that negative age norms endorsed by key organizational decision makers have powerful effects on older workers' recruitment (Oude Mulders, Henkens, & Schippers, 2017) and retention (Karpinska, Henkens, & Schippers, 2013), such that older workers are provided with fewer opportunities. Hence, employees in later career stages may perceive themselves as less employable due to a pervasive ageist bias in organizations (Martin, Dymock, Billett, & Johnson, 2014; Meisner, 2012). Academic and policy research provides strong evidence of ageism in the hiring process across different countries (France: Riach & Rich, 2006; Spain: Riach & Rich, 2007a; Sweden: Ahmed, Andersson, & Hammarstedt, 2012; United Kingdom: Riach & Rich, 2007b; United States: Bendick et al., 1996, 1999) and also of age discrimination in employment (AHRC, 2015).

Second, in line with the literature on meta-stereotypes, we argue that it is not only the norms held by others that shape the older workers' employability perceptions, but that the workers themselves come to share similar beliefs, losing some confidence in their ability to present themselves as strong candidates in the labor market (Leonard, Fuller, & Unwin, 2018). Meta-stereotypes are the beliefs that individuals have concerning the way they (and their group) are perceived by others (Finkelstein et al., 2015).

Empirical research on meta-stereotypes in the workplace is still at a nascent stage, but available evidence points to older workers having more negative meta-stereotypes than middle age and younger workers (Finkelstein, Ryan, & King, 2013), and reporting more negative consequences as a result of these perceptions (Von Hippel, Kalokerinos, & Henry, 2013). We

argue that older workers are conscious of meta-stereotypes about their group, as they experience directly and vicariously the workplace and the labor market. Consequently, older workers may have lower employability beliefs and likely anticipate more negative judgments by potential employers about the relative value of their human capital, as well as their frequently higher costs in comparison to younger counterparts (Van Selm & Van der Heijden, 2013).

The combination of these influences leads us to formulate the following hypothesis:

*Hypothesis 1: Age will be negatively related to individual perceptions of external employability.*

### **The Moderating Role of Human Resource Developmental Practices (HRDPs)**

Drawing on the extant literature on meta-stereotypes, we argue that meta-stereotypes may not necessarily be “activated” or lead to negative effects (Finkelstein et al., 2015). In other words, under certain conditions the effects of these stereotypes may be reduced. For example, research has suggested that individual characteristics such as self-efficacy or self-confidence can buffer the individual against negative meta-stereotypes such as age stereotypes (McAvey, Seeman, & Rodin, 1996). Scholars have also suggested that interventions, such as training, may buffer individuals from the negative effects stemming from meta-stereotypes (Chasteen, Kang, & Remedios, 2012; Finkelstein et al., 2015).

With this in mind, we consider HRDPs, a set of practices, programs, and activities carried out by organizations, which are designed to promote the development of employees (Jiang, Lepak, Hu, & Baer, 2012), as a potential moderator of the relationship between age and employability. HRDPs are important to consider given that employability, “as an individual-level but organizationally relevant employee outcome” (Solberg & Dysvik, 2016, p. 911; see also DeCuyper, Van der Heijden, & De Witte, 2011; Van den Broeck et al., 2014), can be nurtured by organizational investments into employees’ career development (Hall & Mirvis,

1995). HRDPs include performance appraisals, peer/subordinate appraisals, assessment centers, career counseling and mentoring/networking.

Previous research has investigated the direct effect of HRDPs on perceived internal and external employability (Nelissen et al., 2017; Veld, Semeijn, & Van Vuuren, 2015) but findings have been mixed. In some instances, the developmental opportunities intrinsic to one's job were associated with greater perceived employability for older workers (Van der Heijden, Van Vuuren, Kooij, & De Lange, 2015); in others, the reverse occurred, with younger workers deriving greater perceived employability from the learning value of one's job (Van der Heijden, Gorgievski, & De Lange, 2016).

One explanation for such inconsistencies is that past studies considered only training or learning on the job as a developmental practice, rather than the whole set of HRDPs, that are designed to improve individuals' understanding of their organizational contribution, work and career possibilities. We maintain that these developmental practices are most effective if they function as a bundle, or an integrated program (MacDuffie, 1995), in that they provide complementary information about career opportunities, not only within the organization but also elsewhere (Baruch, 1999) and nurture individual characteristics that operate in concert for individual employability (e.g., career self-efficacy expectations, Betz, 2004, and increased self-esteem, Waters, Briscoe, Hall, & Wang, 2014).

More specifically, HRDPs such as mentoring and coaching are likely to boost self-efficacy, as well as to enable individuals to be more accurate in self-assessment and more engaged in self-reflection, which are necessary for formulating realistic beliefs of employability (Fugate et al., 2004). Personal feedback and support activities also lead to increased self-esteem and self-efficacy, which are in turn positively linked to stronger job search activity (Waters et al., 2014). Experiencing developmental practices such as counseling and assessment during one's career equips workers with knowledge and strategies for how to

adapt to and influence changing work environments, thus increasing the adaptability of older workers (Karaevli & Hall, 2006; Zacher & Griffin, 2015).

In particular, we propose that HRDPs that provide individuals with a variety of developmental experiences useful to constructing their perceived employability may attenuate the negative relationship between age and perceived external employability. HRDPs not only promote individuals' life-long learning, but also provide them with valuable feedback on their knowledge, skills and abilities contributing to their self-awareness and self-efficacy (Maddux & Kleiman, 2016). Rather than being overly influenced by age-related meta-stereotypes, individuals are enabled to develop a more accurate view of themselves.

Building on this idea, we argue that HRDPs experienced over the course of individuals' careers can buffer the effect of stereotypes and discrimination pertaining to their age. An older person who has experienced more HRDPs, may construct a more positive employability perception (i.e., assessment of oneself vis-à-vis the anticipated requirements), despite dealing with age stereotypes and holding some meta-stereotypes (Hall & Mirvis, 1995; Harrington & Hall, 2007). Experiencing a variety of different developmental practices, with career development assistance from different actors, might represent a richer resource base for the older individuals, especially when the information contains a variety of career coaching ideas. Based upon this argument, our second hypothesis is therefore:

*Hypothesis 2: The total number of HRDPs experienced by individuals over the course of their careers will moderate the negative relationship between age and perceived external employability, such that the relationship is weaker for high levels of HRDPs compared to low levels of HRDPs.*

### **The Moderating Role of Country-Level Unemployment Rate**

We also argue that, apart from HRDPs, socio-economic factors play an important role in how people assess their own external employability. Unemployment rate is the metric that

is most often used to communicate succinctly what the labor market conditions in a country are (Casey & Owen, 2013), with high unemployment rate collectively seen as indicative of a detrimental context (e.g., Dahling, Melloy, & Thompson, 2013; Liu et al., 2016). We argue therefore that a country's unemployment is likely to affect an individual's perceptions of their labor market mobility potential. A number of empirical studies show that the disclosure of unemployment rates influences people's work-related perceptions. For example, increased unemployment rates negatively affect media consumers' confidence in the future (Casey & Owen, 2013; Hollanders & Vliegenthart, 2011); also, job-related twitter activity decreases when official unemployment rates are released (Liu et al., 2016).

In particular, a high national level of unemployment is likely to give rise to vicarious negative experiences of ageing employees – that is, they will be more likely to observe others that they see as similar to themselves (i.e., ageing) struggle with securing a job or getting better work opportunities (e.g., Chan & Stevens, 2001; Neumark & Button 2014; Wanberg et al., 2016). In turn, such vicarious experiences are used to extrapolate one's own chances (for getting another job) on the labor market (Maurer, 2001). If older workers perceive only few opportunities for their own age group in the external labor market and assume age-related bias in employment (Lyons, Wessel, Chiew Tai, & Ryan, 2014), this is likely to reduce their perceived external employability. Furthermore, in high unemployment contexts, negative meta-stereotypes may be strengthened as there will be many competitors in the labor market, further complicating the prospects of finding a new job. In contrast, a low unemployment rate can indicate an environment that is supportive and creating a favorable context in terms of employment opportunities, which in turn could attenuate the negative relationship between age and perceived external employability.

Summing up, we argue here that the impact of age on perceived external employability will be stronger when the macro-level context is perceived as disadvantageous. People will

generally perceive themselves as less employable when unemployment is high, and even more so when they are older and hold negative meta-stereotypes.

*Hypothesis 3: A country's unemployment rate will moderate the negative relationship between age and an individual's perceived external employability, such that the relationship is weaker when the unemployment rate is low compared to when the unemployment rate is high.*

## **Methods**

### *Sample and data collection*

This study is part of a large multi-country study on careers across national and cultural contexts (Mayrhofer et al., 2016). The sample comprises of individuals from 30 countries (Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Colombia, Finland, Germany, Greece, India, Ireland, Italy, Japan, Malawi, Mexico, Nigeria, Norway, Pakistan, Portugal, Russia, Serbia, Slovakia, Slovenia, South Korea, Switzerland, Turkey, United Kingdom, and the United States of America) from all GLOBE cultural clusters (House, Hanges, Javidan, Dorfman, & Gupta, 2004). The data were gathered by an extensive questionnaire which was created in English and then translated and back-translated to the local languages of all participating countries following a standardized procedure (Brislin, 1970).

Survey participants had at least two years of post-educational work experience. Each national sample targeted at least 400 respondents with approximately equal tripartite age distribution (i.e., under 30 years, 30-50 years and over 50 years), 50/50 gender distribution, and quadripartite occupational distribution (i.e., the sample included managers, professionals, clerical/service workers and skilled manual workers). For the purposes of the present study we used a subsample of managers and professionals ( $n = 9,119$ ). This consisted of 41.3% managers and 58.7% professionals, with average 40.5 years of age, and 16.05 years of work experience. Our sample was gender balanced with 50.7% of study participants being female. Further, 7.5%

of the participants had upper secondary education or below, 16.6% post-secondary or short-cycle tertiary education, 34.6% tertiary education and 39.9% postgraduate education. The hierarchical level of our participants was on average in the middle of their organizational hierarchy (i.e., rank 5 on a 10-level rank scale). Data were collected between 2014 and autumn 2016, using either online or paper-based surveys.

### *Measures*

#### *Individual Level*

*Perceived External Employability* is a dependent variable measured by a reflective scale based on work by Janssens et al. (2003) and Trevor (2001). It was measured by using three items on a 7-point scale ranging from ‘strongly disagree’ to ‘strongly agree’. Sample item is “It will be difficult for me to find new employment when leaving the organization (Reversed)” ( $\alpha=0.77$ ; CR=0.77).

*Age* (chronological age) was measured as a continuous independent variable. We asked our respondents about their year of birth and calculated their age at the time of the survey.

*Human Resource Developmental Practices (HRDPs)* was measured as an additive score of five practices particularly relevant for external employability (i.e., performance appraisal, career counselling, assessment centre, mentoring and/or networking, peer and/or subordinate appraisal) that an individual has been exposed to during her career (Baruch & Peiperl, 2000). Individuals were asked to respond whether they had received each of the practices (yes/no). The more practices the respondent had been exposed to, the higher the score on this measure.

#### *Country Level*

*Unemployment* (rate), the level 2 moderating variable, was measured as the percentage of unemployed people in the labor force of the respondent’s country, where the labor force is defined as the number of unemployed plus those in paid employment. We used OECD’s measure (counting as unemployed all those who report being without work, but are available

for work and have taken active steps to find work in the last four weeks) and 2015 data for this variable.

### *Controls*

Based on previous literature on employability perceptions (De Cuyper et al., 2008; Wittekind et al., 2010), we used the following control variables at the individual level: *Gender* (1=male, 2=female), *Educational level* (from 1 to 7; 1 = primary education, 7 = doctorate), *Managerial position* (1 = yes, 0 = no), *Hierarchical level* (from 10 to 1; 1 = highest level (CEO or President), 10 = lowest hierarchical level).

### *Analytical Procedure*

We used Mplus 8 (Muthén & Muthén, 1998-2016) to estimate our models. Since our hypotheses included cross-level relationships we first assessed the level of variability of the dependent variable, i.e. perceived employability across the countries. The intra-class correlation for employability (ICC (1)) was .085 indicating that 8.5% of the employability variance can be attributed to country-level differences, thus suggesting that multilevel modelling was appropriate. We further assessed the measurement model for our reflective scale variable *perceived employability*. We used confirmatory factor analysis. The factorial model with the three item loadings being constrained as equal showed adequate fit (RMSEA=0.013; CFI=0.997; TLI=0.991; SRMR=0.02).

We then proceeded with estimating empirical models relevant for testing our hypotheses. We started with the intercept only (null) model (Model 1). Then we estimated a model that included all individual-level control variables (Model 2). We continued estimating models where Age (Model 3), and Age, HRDPs and their interaction (Model 4) were consecutively added. Finally, we estimated the hypothesized cross-level interaction between age and unemployment by adopting a random intercept and slope model (Model 5). Grand mean centering was used in all except the null model for all continuous variables; moreover,



in the model where cross-level interaction was estimated we controlled for country mean age.

## Results

Descriptive statistics (means, standard deviations and bivariate correlations) for all individual level variables are available in Table 1.

\*\*\* Insert Tables 1 and 2 about here \*\*\*

The estimated null model, where only the country random effects were included (Table 2, Model 1), yielded significant intercept and within and between country variances (intercept = 4.866,  $p < .001$ ;  $\sigma_{\text{within}} = 1.840$ ,  $p < .001$ ;  $\sigma_{\text{between}} = .171$ ,  $p < .001$ ).

The results from the second step where the individual level control variables (i.e., gender, educational level, hierarchical level, managerial position) were included, are reported in Model 2. With the exception of having a managerial position ( $\gamma = .138$ ,  $p < .01$ ), none of the controls were significantly related to perceived employability.

In Model 3, the hypothesized predictor age was significantly related to employability ( $\gamma = -.029$ ,  $p < .001$ ), indicating that perceived employability decreases with age. In particular, for every additional year of age, perceived employability decreases for .029 points (on a 5-point scale). Thus, Hypothesis 1 was supported. The interaction effect of HRDPs on the relationship between age and employability was modelled in Model 4. To start with, HRDPs had a significantly positive effect on perceived employability ( $\gamma = .086$ ,  $p < .001$ ). Also, the interaction effect was positive and significant ( $\gamma = .003$ ,  $p < .01$ ), offering support for Hypothesis 2. As can be seen in Figure 1 the negative relationship between age and perceived employability is indeed less negative for individuals who have experienced more HRDPs throughout their working life (i.e., HRDPs buffer the negative effect of age on employability). Both simple slopes are significant ( $\gamma = -.026$ ,  $p < .001$ , and  $\gamma = -.018$ ,  $p < .001$  respectively for low and high levels of HRDPs).

\*\*\* Insert Figure 1 about here \*\*\*

In Model 5 we examined cross-level interaction between age and unemployment. Although the main effect of unemployment on employability is negative ( $\gamma = -.039, p < .01$ )—it generally diminishes the perceptions of employability—its cross-level effect with age was not significant ( $\gamma = .000$ , n.s.), thus we do not find support for Hypothesis 3.

In a supplementary analysis we estimated a random slope random intercept model where we modeled a random slope for the moderating effect of HRDPs on the relationship between age and employability. We were interested in establishing if the random slope variance coefficient that depicts variability of the moderating effects across contexts is statistically significant (i.e., if the slope of the focal relationship differs across countries). Results of the analysis show that the random coefficient is not significant ( $\sigma_{\text{slope}} = .000; p = .695$ ) offering evidence for claiming that the moderating effect of HRDPs on the relationship between age and perceived employability of individuals is stable and universal across country contexts.

## **Discussion**

This research generated three important findings: (1) age was negatively related to perceived external employability; (2) this effect was moderated by HRDPs, so that the negative age-employability relationship was less pronounced for individuals who had experienced more HRDPs; and (3) there was no moderating effect of country unemployment rate. These findings provide general support for our first two proposed hypotheses derived from research on age norms (Lawrence, 1988), stereotyping and meta-stereotypes (Finkelstein et al., 2015), thereby contributing significantly to both theory and practice, but do not support our third hypothesis.

### *Theoretical Implications*

In keeping with previous literature (Froehlich et al., 2015), we believe that corroborating a direct relationship between age and employability by itself is not very informative as to how to guarantee older workers' employability. Hence, we see our main theoretical and practical contributions lying with the investigation of moderating factors.

By testing the boundary conditions of the relationship between age and perceived external employability, our study overcomes a common limitation of previous studies, which did not consider the context in which individuals' perceptions of external employability are shaped (Forrier et al., 2018). We explore the buffering and worsening effects of two features of one's context, namely a proximal work-related context, and a distal societal context. We find that HRDPs, experienced by employees throughout their careers, mitigates the negative effect of age on perceived external employability. We argue that HRDPs are likely to alter individuals' meta-stereotypes: Older workers' age meta-stereotypes tend to overlap significantly with stereotypes that others hold about them (Vorauer, Main, & O'Connell, 1998), reflecting that older employees' are often well aware of the stereotypes applied to them and able to accurately guess what others think of them (Finkelstein et al., 2013; North & Fiske, 2015). However, research also shows that age related stereotypes held by others tend to be less negative than older workers' own meta-stereotypes. Thus, this negative bias may induce even more negative effects of age meta-stereotypes on older employees' thoughts, feelings, and behaviors, compared to younger workers (Finkelstein et al., 2013; Vorauer, Hunter, Main, & Roy, 2000) and ultimately on their perceived employability.

Participation in organization-based HRDPs provides employees with enhanced understanding and awareness about their competencies, current performance, areas for improvement and career development opportunities (Bagdadli & Gianecchini, 2019). Moreover, participating in HRDPs that allow contact with employees from different age groups allows older adults to broaden their network, and by doing so, they can also get more insight into the age stereotypes held by younger colleagues. Thus, one can expect that HRDPs help older individuals not only to increase their self-awareness and self-efficacy (Betz, 2004; Waters et al., 2014), but also construct more accurate meta-stereotypes (cf. Finkelstein et al., 2015; Vaclair, Lima, Abrams, Swift, & Bratt, 2016). This can reduce the negative bias inherent in

age meta-stereotypes and can have positive implications for employability perceptions (Weiss & Perry, 2019). Although the interaction effect observed in this study is rather small, it is consistent with the observed median effect size of .002 reported in a 30-year review of moderation effects by Aguinis and colleagues (2005). As moderator effects are very difficult to detect in nonexperimental field studies (McClelland & Judd, 1993), such as the present study, even findings explaining 1% of the total variance should be considered important (Evans, 1985). In the present study, the introduction of the moderator in the model reduced the unexplained variance by 2%.

With this finding we contribute to the literature on HRDPs, aging and employability in a number of ways. By considering an additive index of HRDPs, as compared to studying single practices, we account for HRDPs as a bundle or an integrated program of ongoing employee development (MacDuffie, 1995), which may help reconcile conflicting findings in the literature (Van der Heijden et al., 2015, 2016). While any single practice might be more or less beneficial for certain outcomes, a set of cumulative practices that creates positive synergies is more likely to have an impact on the relationship between age and perceived external employability.

Moreover, we focus on the practices that are provided throughout one's career rather than practices offered exclusively to older workers (cf. Fleischmann, Koster, & Schippers, 2015; Kooij, Jansen, Dijkers, & De Lange, 2014; Korff, Biemann, & Voelpel, 2017). While there have been studies that support the effectiveness of career-related initiatives for older workers (Van der Horst & Klehe, 2019), our findings illustrate the positive role of practices that support employees' development (i.e., HRDPs) regardless of their age.

In addition, it is important to observe that the positive interaction between HRDPs and age on perceived employability does not vary across countries. This ultimately attests to the universality of effects of investing in HRDPs and, therefore in employees' life-long learning

for perceived external employability.

Also, by focusing on national unemployment rate as a moderator of the relationship between age and perceived external employability, we add to the literature on the effects of institutional factors at the macro level on individual outcomes at the micro level (Forrier et al., 2018), and we call for more multi-level research. Our hypothesis that the presence of a detrimental environment would strengthen the negative relationship between age and employability was not supported. This could be due to the fact that societal age-related stereotypes are less homogeneous than expected and thus have a lower effect; or that they have a different, i.e. less important, impact as compared to personal meta-stereotypes on individuals' thoughts, feelings, and behaviors. Similarly, Vauclair et al. (2016) found distinctive influences of individual- and societal-level meta-perceptions on age discrimination, with societal meta-perceptions being unrelated to perceived age discrimination.

The result that unemployment rate across countries did not play a significant moderating role is also in line with the findings by Axelrad, Malul and Luski (2018), who analyzed the relative importance of age and business context related variables for employment chances of older workers using data from 34 OECD countries and Israel. They found that the difficulties faced by unemployed older workers when searching for a job were more a function of their age (i.e. higher salary expectations, higher labor costs and stereotypes about being less productive; see Henkens & Schippers, 2008) than the actual overall business environment (such as unemployment rates). Accordingly, our respondents might have internalized this as a social norm and may weight objective labor market conditions as less relevant in their subjective evaluation of their employability than perceived ageism. In addition, individuals may go beyond the national unemployment rate to concentrate on more specific employment data that are more relevant for them, such as industry or occupational unemployment figures. However, such nuance was very challenging to capture in a research project with data from many

industries and occupations across 30 countries.<sup>1</sup>

### *Limitations and Future Research Directions*

Although by offering a large-scale cross-country investigation of the relationship of age and perceived employability and covering two levels of analysis for its predictors (i.e., individual and country level), our study makes an important contribution to the literature, it is also subject to a range of limitations that are common to statistical surveys across many countries (Bryman, 2016).

Our first limitation concerns the measurement of our variables. Measuring HRDPs demands recall from our respondents as we asked them to report the HRDPs in which they have taken part over the course of their careers. It is not possible to fully rule out a positive bias and over-recall of the HRDPs the respondents were involved in during their career. Future research should ideally involve multi-source data from employees and their employers/supervisors that can provide an objective measure of HRDPs. Next, our measure of employability reflects only one specific dimension of a larger employability construct, namely, one's perceived labour market position and opportunities to continue working but does not account for individuals' motivation and ability (Le Blanc et al., 2017). We chose our conceptualization of employability in view of our focus on meta-stereotypes. The conceptualization and measurement of employability is a long-debated issue (Vanhercke et al., 2014), which is beyond the scope of this paper. Some of the available employability scales, including the one we adopted here, have conceptual overlaps or share similarities in wording with other constructs (e.g., continuance commitment, self-efficacy for job search and

---

<sup>1</sup> Furthermore, on a more detailed point, negative news (e.g., high unemployment rate) is much more likely to be communicated in mass media than favorable news. As a consequence, when the national unemployment is very high, this negative information is a very salient issue and may have a much greater impact on individuals' perceptions (e.g., perceived external employability) than positive information (Soroka, 2006). However, in our sample we have few countries with very high unemployment rate (above 15% or even above 10%). The majority have lower unemployment rates, and this somewhat restricted range might reduce the possibility of observing a moderation effect in the age-perceived employability relationship.

employment). Nevertheless, we note that it is important to be aware of such overlaps so that our findings can be interpreted in the broader research context of studies that examine similar constructs.

Our second limitation stems from our data collection strategy. To our knowledge, this is one of the most ambitious and far-ranging research projects with respect to age and perceived employability. This complexity made it impractical to collect data at multiple points of time. Given common concerns typically associated with cross-sectional studies, future research should strive to use longitudinal panels. Related to our data collection strategy, the present study is impressive in terms of yielding a sample size of 9,119 employees (level 1) nested within 30 countries (level 2) which is consistent with advocated rules of thumb for multilevel samples such that samples should have at least 30 upper level units with at least 30 lower level entities in each (i.e., 30:30 rule, see Kreft & De Leeuw, 1998).

Nevertheless, our sample size at the country level is relatively low. It does not allow us to derive power estimates for the test of cross-level interactions and we are thus unable to make an informed interpretation whether the absence of support for a cross-level interaction is attributable to the lack of an effect or low statistical power (Mathieu, Aguinis, Culpepper, & Chen, 2012). Thus, there is a need to validate our assertions with a sample that has more upper level units. Also, as a function of the complexity of our project, we deliberately focused our attention on the individual and country levels of analysis rather than the organizational level. However, it is possible that the organizational context in which workers are embedded further moderates the association between age and perceived external employability, especially if we consider how HRDPs are implemented by managers and used by the workers (Purcell & Hutchinson, 2007).

Next, we included only professional and managerial occupations in our study. We did so for three main reasons. First, at the current time a large proportion of the workforce across

multiple countries is employed in “knowledge” jobs that comprise professionals and managers (OECD, 2019a). Second, it is evident that knowledge jobs are less physically demanding and, therefore, knowledge workers are more likely to stay longer in the workplace (McLaughlin & Neumark, 2018). Consequently, perceived external employability and age is specifically a relevant topic to study for these groups of employees, which has implications for organizational actors and policy makers. Third, these groups of employees are also more likely to have access to and use HRDPs (Cappelli & Keller, 2014), which is one of our moderators. It is likely that the anticipated meta-stereotypes and the age norms for managers and professionals are quite negative, but for other occupations that require more physical abilities and strength, the association between age and perceived employability may be even stronger. We also therefore encourage researchers to continue the study of age and employability among different occupational groups.

Our study’s third limitation relates to what we could not measure. First, we did not directly assess the respondents’ beliefs about social norms, meta-stereotypes or stereotype threat. We only infer these beliefs from theory rather than provide evidence that these exist. Thus, future research should explicitly measure the explanatory mechanisms underlying the links between age and perceived external employability. These mechanisms may include other mediators in addition to age norms and meta-stereotypes that we argue for in our paper. One of the likely additional mechanisms is path dependency, which alludes to the fact that older employees have made investments over time in certain professional and career paths. Accordingly, they may perceive their external employability as lower to the extent that (i) many other paths are closed to them (as they would require significant investments, for example in education); and (ii) the chosen one may be less viable (for example due to technological progresses that make it obsolete)<sup>2</sup>. Second, we only had access to comparative unemployment

---

<sup>2</sup> We thank an anonymous reviewer for this valuable suggestion.



data at the national level. But unemployment may vary within a country, across industries and geographical regions. It is possible that individuals think that the opportunities to deploy their particular skills and competencies differ depending on how these are valued within particular fields, such as occupational fields (Bowman, McGann, Kimberley, & Biggs, 2017), leading to different meta-stereotypes. Also, the demographics of the labor force in a particular geographic region may influence perceptions and awareness of employability, for example by activating the meta-stereotypes or making salient a level of competition in the labor market. Ideally, future studies should explore this meso-context in more depth.

### *Conclusion and Practical Implications*

Using data collected in a large-scale survey with data from 30 institutionally diverse countries, our study finds that age is negatively related to perceived external employability. This relationship holds across all countries in our sample; however, at the individual level, we find that HRDPs, namely organizational activities designed to improve individuals' understanding of their organizational contribution, work and career possibilities, act as a buffer for this negative relationship, such that the effect was less pronounced for older individuals who have experienced more HRDPs during their working life. These results have a range of practical implications for individuals, organizations and society. Notably, they suggest that it is imperative for both the individual and the organization to share the responsibility that employees are well qualified and highly employable.

On the one hand, consistent with the idea of career ownership (Donald, Baruch, & Asleigh, 2019), individuals should take an active role for their employability and proactively seek out HRDPs. For instance, career counseling and mentoring relationships can emerge originating from an individual's proactivity. Mentoring and counseling activities are likely to increase the self-awareness about one's strengths. On the other hand, it is equally important that organizations provide their employees with HRDPs and inducements over the course of

their careers. Doing so has been found to yield benefits for both the individual and the organization. For example, perceived employability is important to prevent or overcome actual unemployment of individuals (De Battisti, Gilardi, Guglielmetti, & Siletti, 2016; McArdle, Waters, Briscoe, & Hall, 2007). In addition, organizations employing staff with low perceived employability have lower in-role and extra-role performance (Hahn & Kim, 2018) which, in turn, negatively impacts organizational performance (De Cuyper, Van der Heijden, & De Witte, 2011). Thus, organizations that want to promote positive outcomes in their workforce, from a strategic as well as socially responsible perspective, should invest in employees' development to counter the decrease in perceived employability that may come with ageing and associated meta-stereotypes. Of course, we need to bear in mind that organizational policies and practices are just a part of the whole picture. Older workers may suffer by exclusion from work-related social activities, inadequate support of "young" interest groups or just be the target of the jokes of younger employees. Thus, changes in corporate cultures supporting a multi-age labor force are necessary – isolated activities are unlikely to address this age challenge sufficiently.

In addition, there are broader, societal implications. Our data show that employees around the world perceive themselves to be less attractive in the labor market as they get older. Societies should consider how to strengthen and appreciate the role of the older employees more through policy interventions such as tax advantages/deductions for developmental costs, subsidies of the states to the companies with certain age structures or direct contributions to salaries (Sonnet, Olsen, & Manfredi 2014; Von Nordheim, 2004) or also by educational and media campaigns. Many of the countries in the world are aging rapidly – there is no time to waste to draw up potential responses to these challenges.

## References

- Ahmed, A. M., Andersson, L., & Hammarstedt, M. (2012). Does age matter for employability? A field experiment on ageism in the Swedish labour market. *Applied Economics Letters*, 19(4), 403–406.
- Aguinis, H., Beaty, J. C., Boik, R. J., & Pierce, C. A. (2005). Effect size and power in assessing moderating effects of categorical variables using multiple regression: A 30-year review. *Journal of Applied Psychology*, 90, 94-107.
- Australian Human Rights Commission (AHRC) (2015). *National Prevalence Survey of Age Discrimination in the Workplace*. Sydney: AHRC.
- Axelrad, H., Malul, M., & Luski, I. (2018). Unemployment among younger and older individuals: Does conventional data about unemployment tell us the whole story?. *Journal for Labour Market Research*, 52(1), 1–12.
- Bagdadli, S., & Gianecchini, M. (2019). Organizational career management practices and objective career success: A systematic review and framework. *Human Resource Management Review*, 29(3), 353-370.
- Baruch, Y. (1999). Integrated career systems for the 2000s. *International Journal of Manpower*, 20(7), 432–457.
- Baruch, Y., & Peiperl, M. A. (2000). Career management practices: An empirical survey and theoretical implications. *Human Resource Management*, 39(4), 347–366.
- Bendick, M., Brown, L. E., & Kennington, W. (1999). No foot in the door: an experimental study of employer discrimination against older workers. *Journal of Aging & Social Policy*, 10, 5–23.
- Bendick, M., Jackson, C. W., & Romero, J. H. (1996). Employment discrimination against older workers: an experimental study of hiring practices. *Journal of Aging & Social Policy*, 8, 25–46.
- Berntson, E., Sverke, M., & Marklund, S. (2006). Predicting perceived employability: Human

- capital or labour market opportunities? *Economic and Industrial Democracy*, 27, 223-244.
- Betz, N. E. (2004). Contributions of Self-Efficacy Theory to career counseling: A personal perspective. *The Career Development Quarterly*, 52(4), 340–353.
- Böttcher, K., Albrecht, A. G., Venz, L., & Felfe, J. (2018). Protecting older workers' employability: A survey study of the role of transformational leadership. *German Journal of Human Resource Management*, 32(2), 120-148.
- Bowman, D., McGann, M., Kimberley, H., & Biggs, S. (2017). Rusty, invisible and threatening: Ageing, capital and employability. *Work, Employment and Society*, 31(3), 465–482.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford, UK: Oxford University Press.
- Cappelli, P., & Keller, J. R. (2014). Talent management: Conceptual approaches and practical challenges. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1): 305-331.
- Casey, G. P., & Owen, A. L. (2013). Good News, Bad News, and Consumer Confidence. *Social Science Quarterly*, 94(1), 292–315.
- Cavanaugh, M. A., & Noe, R. A. (1999). Antecedents and consequences of relational components of the new psychological contract. *Journal of Organizational Behavior*, 20(3), 323-340.
- Chan, S., & Stevens, A. H. (2001). Job Loss and Employment Patterns of Older Workers. *Journal of Labor Economics*, 19(2), 484–52.
- Chasteen, A. L., Kang, S. K., & Remedios, J. D. (2012). Aging and stereotype threat: Development, process, and interventions. In M. Inzlicht & T. Schmader (Eds.),

- Stereotype threat: Theory, process, and application* (pp. 202–216). New York, NY: Oxford University Press.
- Dahling, J. J., Melloy, R., & Thompson, M. N. (2013). Financial strain and regional unemployment as barriers to job search self-efficacy: A test of social cognitive career theory. *Journal of counseling psychology*, 60, 210–218.
- De Battisti, F., Gilardi, S., Guglielmetti, C., & Siletti, E. (2016). Perceived employability and reemployment: Do job search strategies and psychological distress matter? *Journal of Occupational and Organizational Psychology*, 89(4), 813–833.
- De Cuyper, N., Bernhard-Oettel, C., Berntson, E., Witte, H. D., & Alarco, B. (2008). Employability and Employees' Well-Being: Mediation by Job Insecurity. *Applied Psychology*, 57(3), 488–509.
- De Cuyper, N., & De Witte, H. (2011). The management paradox: self-rated employability and organizational commitment and performance. *Personnel Review*, 40, 152–172.
- De Cuyper, N., Van der Heijden, B. & De Witte, H. (2011). Associations between perceived employability, employee well-being, and its contributions to organizational success: A matter of psychological contracts? *International Journal of Human Resource Management*, 22(7), 1486–1503.
- De Prins, P., De Vos, A., Van Beirendonck, L., & Segers, J. (2015). Sustainable HRM for sustainable careers: Introducing the 'Respect Openness Continuity (ROC) model' In A. De Vos, B. I. J. M. Van der Heijden (Eds.) *Handbook of research on sustainable careers* (pp. 319–334). Cheltenham, UK/ Northampton, MA, USA: Edgar Elgar.
- Derous, E., Buijsrogge, A., Roulin, N., & Duyck, W. (2016). Why your stigma isn't hired : a dual-process framework of interview bias. *Human Resource Management Review*, 26, 90-111.
- Donald, W. E., Baruch, Y., & Ashleigh, M. (2019). The undergraduate self-perception of

- employability: human capital, careers advice, and career ownership. *Studies in Higher Education*, 44(4), 599-614.
- Ebbinghaus, B. (2006). *Reforming early retirement in Europe, Japan and the USA*. Oxford: Oxford University Press.
- Evans, M. G. (1985). A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organizational Behavior and Human Decision Processes*, 36, 305-323.
- Finkelstein, L. M., King, E. B., & Voyles, E. C. (2015). Age metastereotyping and cross-age workplace interactions: A meta view of age stereotypes at work. *Work, Aging and Retirement*, 1(1), 26-40.
- Finkelstein, L. M., Ryan, K. M., & King, E. B. (2013). What do the young (old) people think of me? Content and accuracy of age-based metastereotypes. *European Journal of Work and Organizational Psychology*, 22, 633–657.
- Fisher, G. G., Truxillo, D. M., Finkelstein, L. M., & Wallace, L. E. (2017). Age discrimination: Potential for adverse impact and differential prediction related to age. *Human Resource Management Review*, 27(2), 316–327.
- Fleischmann, M., Koster, F., & Schippers, J. (2015). Nothing ventured, nothing gained! How and under which conditions employers provide employability-enhancing practices to their older workers. *The International Journal of Human Resource Management*, 26(22), 2908–2925.
- Forrier, A., De Cuyper, N., & Akkermans, J. (2018). The winner takes it all, the loser has to fall: provoking the agency perspective in employability research. *Human Resource Management Journal*, 28(4), 511-523.
- Forrier, A., & Sels, L. (2003). The concept employability: A complex mosaic. *International Journal of Human Resources Development and Management*, 3(2), 102–124.

- Forrier, A., Verbruggen, M., & De Cuyper, N. (2015). Integrating different notions of employability in a dynamic chain: The relationship between job transitions, movement capital and perceived employability. *Journal of Vocational Behavior*, 89, 56–64.
- Froehlich, D.E., Beusaert, S.A.J., & Segers, M.S.R. (2015). Age, employability and the role of learning activities and their motivational antecedents: a conceptual model. *International Journal of Human Resource Management*, 26(16), 2087–2101.
- Froehlich, D. E., Beusaert, S., & Segers, M. (2016). Aging and the motivation to stay employable. *Journal of Managerial Psychology*, 31(3), 756-770.
- Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior*, 65, 14–38.
- Guilbert, L., Bernaud, J. L., Gouvernet, B., & Rossier, J. (2016). Employability: review and research prospects. *International Journal for Educational and Vocational Guidance*, 16(1), 69-89.
- Hahn, H. J., & Kim, S. (2018). An empirical study on the relationship between perceived employability and employee performance. *Human Resource Development International*, 21(2), 74–90.
- Hall, D. T., & Mirvis, P. H. (1995). The new career contract: Developing the whole person at midlife and beyond. *Journal of Vocational Behavior*, 47(3), 269–289.
- Harrington, B., & Hall, D. T. (2007). *Career Management & Work-Life Integration: Using Self-Assessment to Navigate Contemporary Careers*. Thousand Oaks, CA: Sage Publications.
- Henkens, K., & Schippers, J. (2008). Labor market policies regarding older workers in the Netherlands. In: Taylor, P. (Ed.) *The Ageing Labor Force: Promises and Prospects* (pp. 141–157). Cheltenham: Edward Elgar.
- Hennekam, S. (2015). Employability of older workers in the Netherlands: antecedents and

- consequences. *International Journal of Manpower*, 36(6), 931-946.
- Hollanders, D., & Vliegenthart, R. (2011). The influence of negative newspaper coverage on consumer confidence: The Dutch case. *Journal of Economic Psychology*, 32(3), 367–373.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (Eds.). (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Thousand Oaks, CAL.: Sage.
- Janssens, M., Sels, L., & Van den Brande, I. (2003). Multiple Types of Psychological Contracts: A Six-cluster Solution. *Human Relations*, 56(11), 1349–1378.
- Jiang, K., Lepak, D. P., Hu, J., & Baer J. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55(6), 1264-1294.
- Karaevli, A., & Hall, D. T. (2006). How career variety promotes the adaptability of managers: A theoretical model. *Journal of Vocational Behavior*, 69(3), 359-373
- Karpinska, K., Henkens, K., & Schippers, J. (2013). Retention of older workers: Impact of managers' age norms and stereotypes. *European Sociological Review*, 29, 1323–1335.
- Kooij, D.T., Jansen, P. G., Dikkers, J.S., & De Lange, A. H. (2014). Managing aging workers: a mixed methods study on bundles of HR practices for aging workers. *The International Journal of Human Resource Management*, 25(15), 2192–2212.
- Korff, J., Biemann, T., & Voelpel, S. C. (2017). Differentiating HR systems' impact: moderating effects of age on the HR system–work outcome association. *Journal of Organizational Behavior*, 38(3), 415–438.
- Kreft, I., & de Leeuw, J. (1998). *Introducing multilevel modeling*. Thousand Oaks, CA: Sage.
- Lawrence, B. (1988). New wrinkles in the theory of age: Demography, norms, and performance ratings. *Academy of Management Journal*, 31(2), 309-337.



- Le Blanc, P. M., Van der Heijden, B. I., & Van Vuuren, T. (2017). "I WILL SURVIVE". A construct validation study on the measurement of sustainable employability using different age conceptualizations. *Frontiers in Psychology*, 8, 1690.
- Leonard, P., Fuller, A., & Unwin, L. (2018). A new start? Negotiations of age and chrononormativity by older apprentices in England. *Ageing and Society*, 38, 1667-1692.
- Liu, T., Homan, C. M., Alm, C. O., White, A. M., Lytle, M. C., & Kautz, H. A. (2016). Understanding discourse on work and job-related well-being in public social media. *Proceedings of the Conference. Association for Computational Linguistics*. Meeting, 1044–1053.
- Lyons, B. J., Wessel, J. L., Chiew Tai, Y., & Ryan, A. M. (2014). Strategies of job seekers related to age-related stereotypes. *Journal of Managerial Psychology*, 29(8), 1009-1027.
- MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *ILR Review*, 48(2), 197-221.
- Maddux, J. E., & Kleiman, E. M. (2016). Self-efficacy: A foundational concept for positive clinical psychology. In A. M. Wood & J. Johnson (Eds.), *The Wiley handbook of positive clinical psychology* (p. 89–101). Wiley-Blackwell.
- Martin, G., Dymock, D., Billett, S., & Johnson, G. (2014). In the name of meritocracy: Managers' perceptions of policies and practices for training older workers. *Ageing and Society*, 34, 992–1018.
- Mathieu, J. E., Aguinis, H., Culpepper, S. A., & Chen, G. (2012). Understanding and estimating the power to detect cross-level interaction effects in multilevel modeling. *Journal of Applied Psychology*, 97, 951-966.
- Maurer, T. J. (2001). Career-relevant learning and development, worker age, and beliefs about self-efficacy for development. *Journal of Management*, 27(2), 123-140.

- Mayrhofer, W., Briscoe, J. P., Hall, D. T., Dickmann, M., Dries, N., Dysvik, A., ... Unite, J. (2016). Career success across the globe: Insights from the 5C project. *Organizational Dynamics*, 45(3), 155–270. <https://doi.org/10.1016/j.orgdyn.2016.07.005>
- McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behavior*, 71(2), 247-264.
- McAvay, G. J., Seeman, T. E., & Rodin, J. (1996). A longitudinal study of change in domain-specific self-efficacy among older adults. *Journal of Gerontology: Psychological Sciences*, 51(5), 243-253.
- McClelland, G.H. & Judd, C.M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin*, 114(2), 376-390.
- McLaughlin, J. S., & Neumark, D. (2018). Barriers to later retirement for men: Physical challenges of work and increases in the full retirement age. *Research on Aging*, 40(3), 232-256.
- McQuaid, R.W., & Lindsay, C. (2005). The concept of employability. *Urban Studies*, 42(2), 197-219.
- Meisner, B. (2012). A meta-analysis of positive and negative age stereotype priming effects on behavior among older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 67B, 13–17.
- Muthén, L. K., & Muthén, B. O. (1998–2016). *Mplus user's guide* (7<sup>th</sup> edition). Los Angeles: Muthén & Muthén.
- Nelissen, J., Forrier, A., & Verbruggen, M. (2017). Employee development and voluntary turnover: Testing the employability paradox. *Human Resource Management Journal*, 27(1), 152–168.
- Neumark, D., & Button, P. (2014). Did age discrimination protection help older workers

- weather the Great Recession? *Journal of Policy Analysis and Management*, 33(3), 566-601.
- North, M. S. (2019). A GATE to Understanding “Older” Workers: Generation, Age, Tenure, Experience. *Academy of Management Annals*, 13(2), 414-443.
- North, M. S., & Fiske, S. T. (2015). Intergenerational resource tensions in the workplace and beyond: Individual, interpersonal, institutional, international. *Research in Organizational Behavior*, 35, 159-179.
- OECD (2019a). Employment by activity (indicator). doi: 10.1787/a258bb52-en (Accessed on 02 April 2019)
- OECD (2019b): *OECD Labour Force Statistics 2019*, OECD Publishing, Paris. doi: [doi.org/10.1787/g2g9fb3e-en](https://doi.org/10.1787/g2g9fb3e-en)
- Oude Mulders, J., Henkens, K., & Schippers, J. (2017). European top managers’ age-related workplace norms and their organizations’ recruitment and retention practices regarding older workers. *Gerontologist*, 57(5), 857–866.
- Purcell, J., & Hutchinson, S. (2007). Front-line managers as agents in the HRM-performance causal chain: theory, analysis and evidence. *Human Resource Management Journal*, 17(1), 3-20.
- Riach, P. A. and Rich, J. (2006). *An experimental investigation of age discrimination in the French labor market*. IZA Discussion Paper No. 2522, Institute for the Study of Labor, Bonn.
- Riach, P. A. and Rich, J. (2007a). *An experimental investigation of age discrimination in the Spanish labor market*. IZA Discussion Paper No. 2654, Institute for the Study of Labor, Bonn.
- Riach, P. A. and Rich, J. (2007b). *An experimental investigation of age discrimination in the English labor market*. IZA Discussion Paper No. 3029, Institute for the Study of Labor,

Bonn.

- Roskies, E., & Louis-Guerin, C. (1990). Job insecurity in managers: antecedents and consequences, *Journal of Organizational Behavior*, 11(5), 345-359.
- Solberg, E., & Dysvik, A. (2016). Employees' perceptions of HR investment and their efforts to remain internally employable: testing the exchange-based mechanisms of the 'new psychological contract. *The International Journal of Human Resource Management*, 27(9), 909–927.
- Sonnet, A., Olsen, H., & Manfredi, T. (2014). Towards more inclusive ageing and employment policies: The lessons from France, The Netherlands, Norway and Switzerland. *De Economist*, 162, 315–339.
- Soroka, S. N. (2006). Good news and bad news: Asymmetric responses to economic information. *The Journal of Politics*, 68(2), 372-385.
- Tisch, A. (2015). The employability of older job-seekers: Evidence from Germany. *The Journal of the Economics of Ageing*, 6, 102-112.
- Trevor, C. O. (2001). Interactions among actual ease-of-movement determinants and job satisfaction in the prediction of voluntary turnover. *Academy of Management Journal*, 44(4), 621–638.
- UN (2019). World Population Prospects 2019: Highlights (ST/ESA/SER.A/423). [https://population.un.org/wpp/Publications/Files/WPP2019\\_Highlights.pdf](https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf), 29.08.2019.
- Van Dam, K., van Vuuren, T., & Kemps, S. (2017). Sustainable employment: the importance of intrinsically valuable work and an age-supportive climate. *The International Journal of Human Resource Management*, 28(17), 2449-2472.
- Van den Broeck, A., De Cuyper, N., Baillien, E., Vanbelle, E., Vanhercke, D., & De Witte, H. (2014). Perception of organization's value support and perceived employability: insights from self-determination theory. *International Journal of Human Resource Management*,

25(13), 1904–1918.

- Van der Heijde, C. M., & Van der Heijden, B. I. J. M. (2006). A competence-based and multi-dimensional operationalization and measurement of employability. *Human Resource Management, 45*, 449–476.
- Van der Heijden, B.I.J.M., Gorgievski, M.J. & De Lange, A.H. (2016). Learning at the workplace and sustainable employability: a multi-source model moderated by age. *European Journal of Work and Organizational Psychology, 25*(1), 13–30.
- Van der Heijden, B. I., Van Vuuren, T. C., Kooij, D. T., & De Lange, A. H. (2015). Tailoring professional development for teachers in primary education: The role of age and proactive personality. *Journal of Managerial Psychology, 30*(1), 22–37.
- Van der Horst, A. C., & Klehe, U. C. (2019). Enhancing career adaptive responses among experienced employees: A mid-career intervention. *Journal of Vocational Behavior, 111*, 91-106.
- Vanhercke, D., De Cuyper, N., Peeters, E., & De Witte, H. (2014). Defining perceived employability: a psychological approach. *Personnel Review, 43*(4), 592-605.
- Van Selm, M., & van der Heijden, B. I. J. M. (2013). Communicating employability enhancement throughout the life-span: A national intervention program aimed at combating age-related stereotypes at the workplace. *Educational Gerontology, 39*(4), 259–272.
- Vauclair, C. M., Lima, M. L., Abrams, D., Swift, H. J., & Bratt, C. (2016). What do older people think that others think of them, and does it matter? The role of meta-perceptions and social norms in the prediction of perceived age discrimination. *Psychology and Aging, 31*(7), 699-710.
- Veld, M., Semeijn, J., & Van Vuuren, T. (2015). Enhancing perceived employability: An interactionist perspective on responsibilities of organizations and employees. *Personnel*

*Review*, 44, 866–882.

- Von Hippel, C., Kalokerinos, E. K., & Henry, J. D. (2013). Stereotype threat among older employees: Relationship with job attitudes and turnover intentions. *Psychology and Aging*, 28(1), 17-27.
- Von Nordheim, F. (2004). Responding well to the challenge of an ageing and shrinking workforce. European Union policies in support of Member State efforts to Retain, Reinforce & Re-integrate Older Workers in employment. *Social Policy and Society*, 3(2), 145–153.
- Vorauer, J. D., Hunter, A. J., Main, K. J., & Roy, S. A. (2000). Metastereotype activation: Evidence from indirect measures for specific evaluative concerns experienced by members of dominant groups in intergroup interaction. *Journal of Personality and Social Psychology*, 78(4), 690.
- Vorauer, J. D., Main, K. J., & O'Connell, G. B. (1998). How do individuals expect to be viewed by members of lower status groups? Content and implications of meta-stereotypes. *Journal of Personality and Social Psychology*, 75, 917-937.
- Wanberg, C. R., Kanfer, R., Hamann, D. J., & Zhang, Z. (2016). Age and reemployment success after job loss: An integrative model and meta-analysis. *Psychological Bulletin*, 142(4), 400–426.
- Waters, L., Briscoe, J. P., Hall, D. T., & Wang, L. (2014). Protean career attitudes during unemployment and reemployment: A longitudinal perspective. *Journal of Vocational Behavior*, 84(3), 405-419.
- Weiss, D., & Perry, E. L. (2019). Implications of generational and age metastereotypes for older adults at work: The role of agency, stereotype threat, and job search self-efficacy. *Work, Aging and Retirement*, forthcoming. doi:10.1093/workar/waz010
- Wittekind, A., Raeder, S., & Grote, G. (2010). A longitudinal study of determinants of

perceived employability. *Journal of Organizational Behavior*, 31(4), 566–586.

Zacher, H., & Griffin, B. (2015). Older workers' age as a moderator of the relationship between career adaptability and job satisfaction. *Work, Aging and Retirement*, 1(2), 227–236.

Zaniboni, S., Kmicinska, M., Truxillo, D. M., Kahn, K., Paladino, M. P., & Fraccaroli, F. (2019). Will you still hire me when I am over 50? The effects of implicit and explicit age stereotyping on resume evaluations. *European Journal of Work and Organizational Psychology*. Published online first on April 5. doi: 10.1080/1359432X.2019.1600506

Table 1. Descriptive statistics

Variable	Min	Max	M	SD	1	2	3	4	5	6
1. Employability	1.00	7.00	4.86	1.42	(.77)					
2. Gender	1 (m <sup>^</sup> )	2 (f <sup>^</sup> )	1.51	.50	-.052**					
3. Education	1.00	7.00	5.12	1.09	.092**	-.010				
4. Hierarchical level	1 (h*)	10 (l*)	5.04	2.17	-.071	.098**	-.142**			
5. Managerial position	0 (no)	1 (yes)	0.41	.49	.056**	-.165**	-.052**	-.239**		
6. HRDPs	0.00	5.00	2.47	1.51	.101**	-.079**	.042**	-.049**	.186**	
HRDPs (Age<40.48)	0.00	5.00	2.46	1.52						
HRDPs (Age>40.48)	0.00	5.00	2.47	1.51						
7. Age	15	78	40.48	10.67	-.202**	-.062**	-.095**	-.128**	.0135**	.017

Notes: n = 8963 – 9119; \* Correlation is significant at the 0.05 level (2-tailed); \*\*. Correlation is significant at the 0.01 level (2-tailed); m<sup>^</sup>=male; f<sup>^</sup>=female; h\*=highest level; l\*=lowest level;



Table 2. Estimation of two-level models predicting perceived external employability

	Model 1 (null)	Model 2 (controls)	Model 3 (Age)	Model 4 (HRDPs*Age interaction)	Model 5 (cross-level interaction)
<i>Intercept</i>	4.866*** (0.077)	4.913*** (0.093)	4.908*** (0.084)	4.767*** (0.082)	4.795*** (0.713)
<i>Level 1</i>					
Gender		-0.074 (0.044)	-0.105* (0.042)	-0.093* (0.042)	-0.098* (0.041)
Education		0.053 (0.036)	0.043 (0.036)	0.037 (0.037)	0.034 (0.037)
Hierarchical Level		-0.012 (0.016)	-0.033 (0.018)	-0.029 (0.018)	-0.025 (0.021)
Managerial position		0.138** (0.051)	0.208*** (0.055)	0.159** (0.053)	0.162** (0.056)
Age			-0.029*** (0.004)	-0.029*** (0.004)	0.056 (0.034)
HRDPs				0.086*** (0.011)	0.088*** (0.011)
HRDPs*Age				0.003** (0.001)	0.002+ (0.001)
<i>Level 2</i>					
Age (country mean)					0.000 (0.017)
Unemployment rate					-0.039** (0.012)
<i>Cross-level interaction</i>					
Age*Unemployment					0.000 (0.523)
Age* Age (country mean)					-0.002* (0.001)
<i>Variance components</i>					
Residual Variance (Within)	1.840*** (0.100)	1.836*** (0.104)	1.752*** (0.087)	1.738*** (0.086)	1.707*** (0.084)
Residual Variance (Between)	0.171*** (0.030)	0.161*** (0.029)	0.174*** (0.031)	0.148*** (0.025)	0.122*** (0.023)
Slope Variance ( $\tau_{11}$ )					0.000*** (0.000)
Intercept-Slope					-0.001 (0.001)

Covariance

AIC	31545.6	30594.9	30113.3	29415.0	29331.3
R <sup>2</sup>		0.006	0.06	0.069	
Deviance	31539.564	30580.898	30097.298	29395.12	29299.336
n Level 1	9119	8848	8827	8641	8641
n Level2	30	30	30	30	30

---

Notes. Unstandardized coefficients are reported with standard errors in parentheses;

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Figure 1. Interaction plot between Age and HRDPs

